



U.S. Department of the Interior
Bureau of Land Management



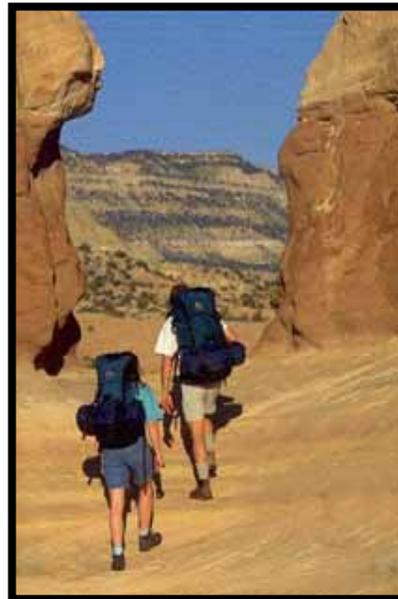
Introduction to BMPs



Best Management Practices for Fluid Minerals

Outstanding Resources

The BLM manages many outstanding resources, including important wildlife habitat, scenic western landscapes, flowing streams & rivers, recreational opportunities, and many others.



The BLM's Goal is Sustainable Energy Development

Meeting the needs of the current generation, without compromising the ability of future generations to meet their needs.



Photo of a lower impact two-track road into a drilling operation. Road follows contour of the land to avoid straight lines and cut & fill. Well location mowed, not excavated, to temporarily reduce vegetation. Only the rig and pit areas are excavated.

Environmental Impacts Are Not Permanent

Oil & Gas Exploration and Production is temporary or long-term, but **not a permanent** use of the Public Land. Over time, nearly all traces of energy development should be erased.

Development Over Time

Phase 1: Resources at Pre-Development:

Wildlife; Soils; Water; Air; Recreation; Visual; Vegetation; Grazing; etc.



Phase 2: Resources During Energy Development:

Energy; Wildlife; Soils; Water; Air; Recreation; Visual; Vegetation; Grazing; etc.



Phase 3: Resources Following Field Reclamation:

Wildlife; Soils; Water; Air; Recreation; Visual; Vegetation; Grazing; etc.



Best Management Practices (BMPs)

“Taking Improved Actions to Achieve Improved Results”

As you will see in the presentations that follow, there are a wide variety of BMPs such as:

Siting or Location - Behind the Hill or Ridge	Color Selection - Blend with Background, Juniper Green*	Reducing Unnecessary Disturbance – Roads and pads
Interim Reclamation - Up to the Wellhead	Plans of Development (PODs)	Reduce Traffic – Centralized Production Facilities
Reclamation - Original Contour	Siting - Non-Linear Roads following the topography	Wastes and Spills– Bioremediation

Note: A BMP suitable for use in one area, may not be suitable in the next. BMPs are not “one size fits all.” Use the best practice to meet the site-specific needs.

We Use BMPs Because...

- **They have a history of use.** BMPs have been used successfully by many oil and gas operators across the West.
- **They protect resources** such as wildlife habitat, forage, water, and scenery.
- **They meet Land Health Standards** found in all BLM Land Use Plans.
- **The Cost of implementing BMPs may be more, the same, or may result in a cost savings.** BMPs typically constitute only a small portion of the cost of drilling a well.
- **They avert many of the negative impacts that the public associates with energy production activities.** Left unaddressed, public concern over these impacts results in increased comments, protests, appeals, & litigation.
- **It is the Right Thing to Do!**

Installing devices to keep raptors from perching on power poles is a BMP. This eagle would not have been electrocuted if that BMP had been implemented on this power pole.



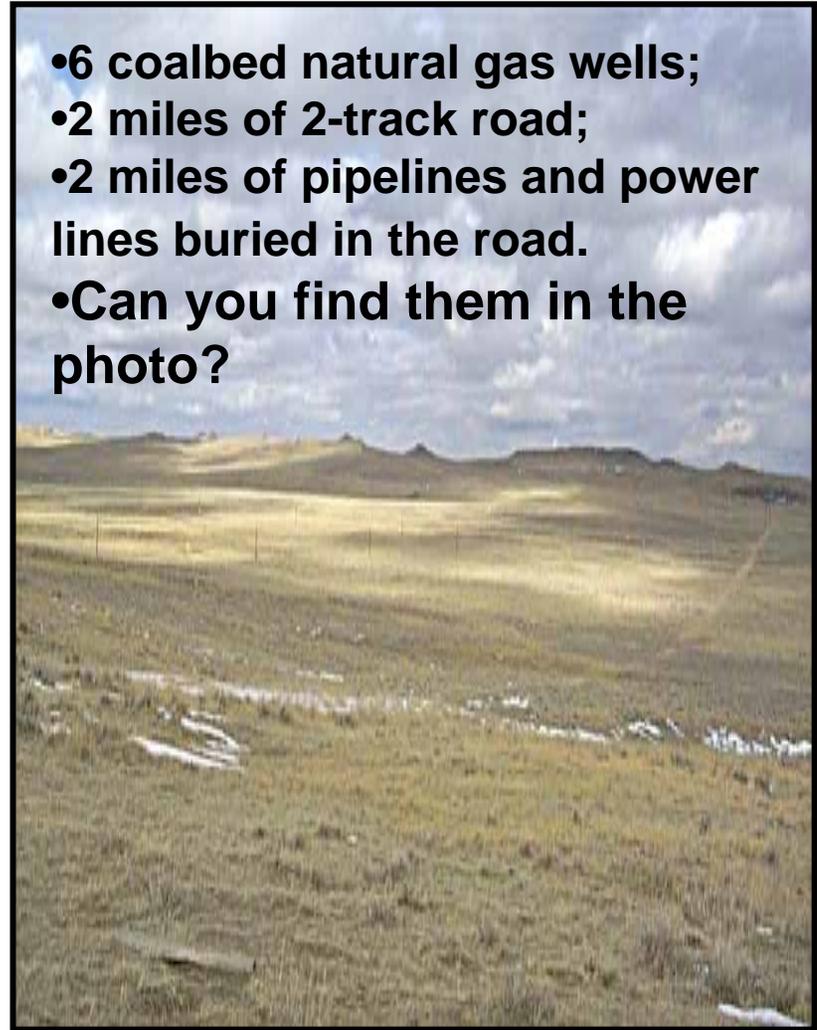
Traditional Development

BMP Development

Both Photos Represent Extremes –We can learn much from the photo on the right.



- 6 coalbed natural gas wells;
- 2 miles of 2-track road;
- 2 miles of pipelines and power lines buried in the road.
- Can you find them in the photo?



BMP Objective: To Minimize the Footprint of Oil and Gas Operations

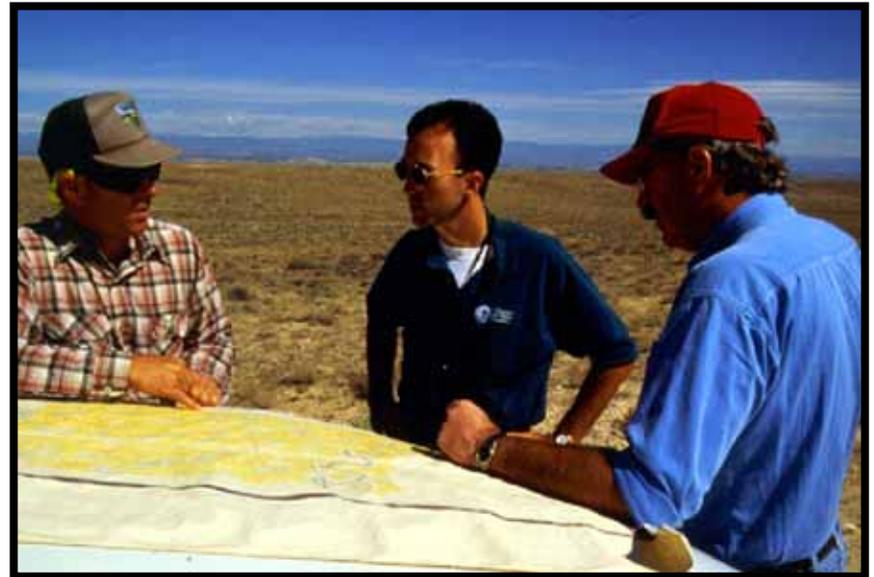
How Do We Improve the Process and Protect the Environment?

By using:

- Good Science, Experienced Employees, Baseline Inventories, Monitoring, Follow-up Adjustments to BMPs.
- Land Use Planning Lease Stipulations.
- Early Coordination between the BLM and the Operator.
 - Pre-Development Planning
 - Sensitive Area Avoidance
 - Identifying BMPs to minimize impacts.

The Result:

- When BLM receives coordinated, quality APDs containing BMPs, the permit process becomes simplified and environmental protection is increased.
- If BMPs necessary for protection of important resources are not included within the APD, they can be attached to it as COAs.



APDs = Applications for Permit to Drill
COAs = Conditions of Approval

Please continue on with the additional slideshows for a detailed look at the BMPs that are designed to minimize impacts to the many Public Land resources we all cherish.

